

APPLICANT: David Rowley, et al.
SERIAL NO.: 10/060,345
DOCKET NO.: 23415-012
CUSTOMER NO.: 29315

LISTING OF CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the Application.

1. **(Currently Amended)** An exercise launcher that is associated with a single computer that performs selected exercises using different virtual machines, the exercise launcher comprising:

✓ a user interface that ~~functions to display~~displays a list of classroom exercises, wherein each classroom exercise is associated with one or more virtual machines; and wherein each virtual machine is associated with a different operating system, the user interface enabling a user and enables a student to select a classroom exercise and indicate that the student would like to perform the selected exercise;

a database that determines ~~determining means for determining~~ the one or more virtual machines associated with which the selected classroom exercise is associated; and

a virtual machine launcher that launches the one or more virtual machines associated with which the selected classroom exercise is associated in response to the student indicating that the student would like to perform the selected classroom exercise.

2. **(Currently Amended)** The exercise launcher of claim 1, wherein the ~~determining means comprises means for accessing~~ database comprises a classroom database that stores the names of the classroom exercises and associates each name with one or more virtual machine identifiers.

3. **(Currently Amended)** The exercise launcher of claim 2, wherein the ~~determining means~~ database is adapted to store ~~further comprises means for determining~~ the one or more of the virtual machine identifiers associated with which the name of a corresponding selected classroom exercise ~~is associated.~~

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4. (Original) The exercise launcher of claim 3, wherein each of the one or more virtual machines with which the selected classroom exercise is associated comprises a set of virtual machine (VM) files.

5. (Original) The exercise launcher of claim 4, wherein each set of VM files comprises, at the least, a virtual disk file.

6. (Original) The exercise launcher of claim 5, wherein each set of VM files further comprises a suspended state file.

7. (Currently Amended) A classroom computer system comprising: ~~the exercise launcher of claim 1~~

a virtual machine platform that enables multiple operating system environments to run concurrently using hardware resources of the classroom computer system;

one or more virtual machines associated with the virtual machine platform, wherein each of the one or more virtual machines has a corresponding operating system and corresponding application programs configured to run on the corresponding operating system and wherein each of the one or more virtual machines is associated with a different operating system; and

an exercise launcher that associated classroom exercises with the one or more virtual machines.

8. (Currently Amended) The classroom computer system of claim 7, wherein the exercise launcher further comprising comprises:

a user interface that displays a list of classroom exercises, wherein each classroom exercise is associated with one or more virtual machines and wherein the user interface enables a user to select a classroom exercise

a database that determines the one or more virtual machines associated with the selected classroom exercise; and

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a virtual machine launcher that launches the one or more virtual machines associated with the selected classroom exercise~~a virtual machine platform for supporting virtual machines; and one or more virtual machines.~~

9. **(Currently Amended)** The classroom computer system of claim 7~~8~~, further ~~comprising wherein the database comprises a classroom database that stores the name of the selected classroom exercise and associates the name of the selected classroom exercises with one or more virtual machine identifiers.~~

10. **(Currently Amended)** The classroom computer system of claim 9, wherein the ~~determining means comprises means for accessing the classroom database and means for determining the~~ is adapted to associate the one or more of the virtual machine identifiers which with the name of the selected classroom exercise ~~is associated.~~

11. **(Original)** The classroom computer system of claim 7, wherein each of the one or more virtual machines comprises a set of virtual machine (VM) files.

12. **(Original)** The classroom computer system of claim 11, wherein each set of VM files comprises a virtual disk file.

13. **(Original)** The classroom computer system of claim 12, wherein each set of VM files further comprises a suspended state file.

14. **(Currently Amended)** A system for configuring a classroom computer, comprising: means for determining the a name of a course that is available to be installed onto the classroom computer, wherein the course is associated with one or more classroom exercises and each classroom exercise is associated with one or more virtual machines, wherein each virtual machine is associated with a different operating systems, and wherein each virtual machine (VM) is associated with a set of VM files;

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means for displaying the name of the course to a user of the system;

means for enabling the user to select the course ~~and to indicate that the user wishes to install the course on the classroom computer;~~

means for ~~receiving an indication that the user wishes to install~~ installing the selected course on the classroom computer;

means for determining the names of the one or more classroom exercises associated with the selected course;

means for storing the course name and the names of the one or more classroom exercises in a database that is accessible to the classroom computer, wherein the course name is associated with ~~the corresponding~~ classroom exercise names ~~so that by knowing the course name one to enable the user can to retrieve from the database~~ the names of the one or more classroom exercises associated with the selected course name;

means for determining a VM that is associated with one of the one or more classroom exercises; and

means for ~~storing on a storage device the set of VM files belonging to said~~ from the determined VM, ~~wherein the storage device is accessible to the classroom computer.~~

15. (Original) The system of claim 14, further comprising means for storing a VM identifier in the database, wherein said VM identifier identifies said determined VM.

16. (Currently Amended) The system of claim 15, wherein the name of the classroom exercise that is associated with which said the determined VM ~~is associated is further~~ associated with said VM identifier ~~stored in said database so that the system is adapted to retrieve that by knowing said name of the classroom exercise one can retrieve from the database said the~~ VM identifier upon selecting the name of the classroom exercise.

17. (Currently Amended) The system of claim 16, wherein said VM identifier ~~can be used is configured~~ to locate said set of VM files stored on the storage device.

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18. **(Original)** The system of claim 17, wherein said set of VM files consists of one or more files.

19. **(Original)** The system of claim 18, wherein said set of VM files comprises a virtual disk file.

20. **(Original)** The system of claim 19, wherein said set of VM files further comprises a suspended state file.

21. **(Currently Amended)** A computer implemented method for enabling a ~~student-user~~ to perform an exercise using a single computer, comprising:

displaying a list of exercises, wherein ~~each exercise is~~ the exercises are associated with one or more operating systems that are implemented using one or more virtual machines;

receiving an indication that ~~the student would like to~~ execute ~~perform~~ a selected one of the listed exercises;

determining the one or more virtual machines associated with ~~which~~ the selected exercise is associated; and

launching, on the single computer, the virtual machines associated with ~~which~~ the selected classroom exercise ~~is associated in response to the student indicating that the student would like to perform the selected classroom exercise.~~

22. **(Currently Amended)** The method of claim 21, wherein the act of determining the one or more virtual machines associated with ~~which~~ the selected exercise ~~is associated~~ comprises accessing a classroom database that stores the names of the classroom exercises and associates each name with one or more virtual machine identifiers.

23. **(Currently Amended)** The method of claim 22, wherein the act of determining the one or more virtual machines associated with ~~which~~ the selected exercise ~~is associated~~ further

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comprises determining the one or more of the virtual machine identifiers associated with which the name of a selected classroom exercise ~~is associated~~.

24. **(Original)** The method of claim 23, wherein each of the one or more virtual machines with which the selected classroom exercise is associated comprises a set of virtual machine (VM) files.

25. **(Original)** The method of claim 24, wherein each set of VM files comprises, at the least, a virtual disk file.

26. **(Original)** The method of claim 25, wherein each set of VM files further comprises a suspended state file.

27. **(Currently Amended)** A computer implemented method for configuring a classroom computer, comprising:

determining ~~the~~ a name of a course that is available to be installed onto the classroom computer, wherein the course is associated with one or more classroom exercises and each classroom exercise is associated with one or more virtual machines, wherein each virtual machine is associated with a different operating systems, and wherein each virtual machine (VM) is associated with a set of VM files;

displaying the name of the course to a user of the computer;

enabling the user to select the course and ~~to indicate~~ provide an indication that the user ~~wishes-desires~~ to install the course on the classroom computer;

receiving an indication that the user ~~wishes-desires~~ to install the course on the classroom computer;

determining the names of the one or more classroom exercises;

storing the course name and the names of the one or more classroom exercises in a database that is accessible to the classroom computer, wherein the course name is associated with the classroom exercise names so that ~~by knowing~~ providing the course name ~~one can retrieve~~

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~~from the database~~ enables retrieval of the names of the one or more classroom exercises from the database;

determining a VM that is associated with one of the one or more classroom exercises; and
storing ~~on a storage device~~ the set of VM files ~~belonging that belong~~ to said determined VM, ~~wherein the storage device is accessible to the classroom computer.~~

28. **(Original)** The method of claim 27, further comprising storing a VM identifier in the database, wherein said VM identifier identifies said determined VM.

29. **(Currently Amended)** The method of claim 28, further comprising associating the name of the classroom exercise ~~that is associated with said determined VM~~ with said VM identifier ~~stored in said database so that by knowing said~~ providing the name of the classroom exercise ~~one can retrieve from the database said~~ enables retrieval of the VM identifier.

30. **(Currently Amended)** The method of claim 29, wherein said VM identifier ~~can be~~ is used to locate said set of VM files stored on the storage device.

31. **(Original)** The method of claim 30, wherein said set of VM files consists of one or more files.

32. **(Original)** The method of claim 31, wherein said set of VM files comprises a virtual disk file.

33. **(Original)** The method of claim 32, wherein said set of VM files further comprises a suspended state file.

34. **(Currently Amended)** A computer program product for enabling a ~~student~~ user to perform an exercise using a single computer, the computer program product being embodied in a computer readable medium and comprising computer instructions for:

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displaying a list of exercises, wherein ~~each exercise is~~ the exercises are associated with one or more operating systems that are implemented using one or more virtual machines;

receiving an indication ~~that the student would like to~~ execute ~~perform~~ a selected one of the listed exercises;

determining the one or more virtual machines associated with ~~which~~ the selected exercise is associated; and

launching, on the single computer, the virtual machines associated with ~~which~~ the selected classroom exercise is associated in response to the student indicating that the student would like to ~~perform the selected classroom exercise~~.

35. **(Currently Amended)** The computer program product of claim 34, wherein the computer instructions for determining the one or more virtual machines associated with ~~which~~ the selected exercise is associated comprises computer instructions for accessing a classroom database that stores the names of the classroom exercises and associates each name with one or more virtual machine identifiers.

36. **(Currently Amended)** The computer program product of claim 35, wherein the computer instructions for determining the one or more virtual machines associated with ~~which~~ the selected exercise is associated further comprises computer instructions for determining the one or more of the virtual machine identifiers associated with ~~which~~ the name of a selected classroom exercise is associated.

37. **(Currently Amended)** The computer program product of claim 36, wherein each of the one or more virtual machines associated with ~~which~~ the selected classroom exercise is associated comprises a set of virtual machine (VM) files.

38. **(Original)** The computer program product of claim 37, wherein each set of VM files comprises, at the least, a virtual disk file.

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39. (Original) The computer program product of claim 38, wherein each set of VM files further comprises a suspended state file.

40. (Currently Amended) A computer program product for configuring a classroom computer, the computer program product being embodied in a computer readable medium and comprising computer instructions for:

determining ~~the~~ a name of a course that is available to be installed onto the classroom computer, wherein the course is associated with one or more classroom exercises and each classroom exercise is associated with one or more virtual machines, wherein each virtual machine is associated with a different operating systems, and wherein each virtual machine (VM) is associated with a set of VM files;

displaying the name of the course to a user of the computer;

enabling the user to select the course and to ~~indicate~~ provide an indication that the user ~~wishes~~ desires to install the course on the classroom computer;

receiving an indication that the user ~~wishes~~ desires to install the course on the classroom computer;

determining the names of the one or more classroom exercises;

storing the course name and the names of the one or more classroom exercises in a database that is accessible to the classroom computer, wherein the course name is associated with the classroom exercise names so that ~~by knowing~~ providing the course name ~~one can retrieve from the database~~ enables retrieval of the names of the one or more classroom exercises from the database;

determining a VM that is associated with one of the one or more classroom exercises; and

storing ~~on a storage device~~ the set of VM files ~~belonging that belong~~ to said determined VM, ~~wherein the storage device is accessible to the classroom computer.~~

41. (Original) The computer program product of claim 40, further comprising computer instructions for storing a VM identifier in the database, wherein said VM identifier identifies said determined VM.

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42. (Currently Amended) The computer program product of claim 41, further comprising computer instructions for associating the name of the classroom exercise ~~that is associated with said determined VM with said VM identifier stored in said database so that by knowing said~~ providing the name of the classroom exercise one can retrieve from the database ~~said~~ enables retrieval of the VM identifier.

43. (Currently Amended) The computer program product of claim 42, wherein said VM identifier ~~can be~~ is used to locate said set of VM files stored on the storage device.

44. (Original) The computer program product of claim 43, wherein said set of VM files consists of one or more files.

45. (Original) The computer program product of claim 44, wherein said set of VM files comprises a virtual disk file.

46. (Original) The computer program product of claim 45, wherein said set of VM files further comprises a suspended state file.

47. (Currently Amended) A computer signal embodied in a carrier wave readable by a computing system for enabling a user to perform an exercise using a single computer, the computer signal being capable of ~~and~~ encoding a computer program of instructions for executing a computer process, ~~performing the method recited in claim 21 comprising:~~

displaying a list of exercises, wherein the exercises are associated with one or more operating systems that are implemented using one or more virtual machines;
receiving an indication to execute a selected one of the listed exercises;
determining the one or more virtual machines associated with the selected exercise; and
launching, on the single computer, the virtual machines associated with the selected classroom exercise.

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48. (Currently Amended) A computer signal embodied in a carrier wave readable by a computing system and encoding a computer program of instructions for executing a computer process, ~~performing the method recited in claim 27~~ comprising:

determining a name of a course that is available to be installed onto the classroom computer, wherein the course is associated with one or more classroom exercises and each classroom exercise is associated with one or more virtual machines, wherein each virtual machine is associated with a different operating systems, and wherein each virtual machine (VM) is associated with a set of VM files;

displaying the name of the course to a user of the computer;

enabling the user to select the course and provide an indication that the user desires to install the course on the classroom computer;

receiving an indication that the user desires to install the course on the classroom computer;

determining the names of the one or more classroom exercises;

storing the course name and the names of the one or more classroom exercises in a database that is accessible to the classroom computer, wherein the course name is associated with the classroom exercise names so that providing the course name enables retrieval of the names of the one or more classroom exercises from the database;

determining a VM that is associated with one of the one or more classroom exercises; and

storing the set of VM files that belong to said determined VM.